Microsoft Exchange Server

Chapter 4
Installing Exchange 2000 Server

Deployment Guide

Abstract

This chapter outlines the steps required to install an Exchange 2000 server in an existing Exchange 5.5 organization. After completing these steps, you will have a mixed-mode Exchange 2000 organization, and a downlevel Exchange site with at least one Exchange 2000 server in it. You will also have directory synchronization between the downlevel Exchange organization and the Windows 2000 Active Directory.

This is a preview edition of the Microsoft Exchange 2000 Server Upgrade Series. The final documentation will be available in November 2000.

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INTRODUCTION

Now that you have prepared your Active Directory environment for Exchange 2000 and implemented the Active Directory Connector, it is time to install Exchange 2000. The procedures in this chapter step you through installing Exchange 2000 on a Windows 2000 server in a Windows 2000 domain.

Design Considerations

Installing an Exchange 2000 server in an existing Exchange organization is a requirement for moving resources from downlevel (5.5 or below) Exchange systems that you don't wish to upgrade, or that cannot be upgraded. An example of an Exchange system that cannot be upgraded is a server that hosts a connector, such as PROFS or SNADS, where the equivalent component does not yet exist in Exchange 2000. The new Exchange 2000 system can be used to receive public folders, mailboxes, or compatible connectors from the existing Exchange 5.5 systems with minimal impact on the current environment.

Prior to installing an Exchange 2000 server, the Active Directory must be prepared as follows:

- Run Setup with both the ForestPrep and DomainPrep switches where required.
- Be sure that the Active Directory Connector is operational.
- Verify that Replication has propagated these changes to the domain in which the server that will receive Exchange 2000 is a member.
- Verify that the Exchange Full Administrator account has been defined.

These procedures are covered in detail in Chapter 2, "Configuring Active Directory for Exchange 2000."

Chapter Sections

This chapter covers the following procedures:

- Preparing for installation issues
- Exchange 2000 installation procedure
- Recovering after a failed Exchange 2000 installation

Before looking at these sections in detail, let's consider the prerequisites for those procedures.

Resource Requirements

This section gives you details of the resources that you will need to install Exchange 2000 on a Windows 2000 server in your organization.

Installation Team

Installation team requirements are covered in detail in Chapter 1, “Overview of the Deployment Process,” and Chapter 12, “Promoting an Exchange Pilot System to Production.”

For this procedure, you should be a member of the current Exchange administrators group in Exchange 5.5 if you are going to install an Exchange 2000 server in a downlevel Exchange organization.

Security and Account Privileges

The account you use to perform this installation must have Exchange Full Administrator privileges in the Exchange 2000 Administrative Group where the server is being installed. This account will also need to have administrator rights on the server on which you are installing Exchange 2000.

Skills

If you are performing this installation, you should have experience administering Exchange 5.5. If you don’t have these skills, please read the following: “Microsoft Exchange Server 5.5 Series – Accelerated Training for Administration and Implementation” available from:

http://www.microsoft.com/trainingandservices/syllabi/syllasearch.asp?PageURL=/TrainingAndServices/content/syllabi/1313afinal.txt

System Prerequisites

To install Exchange 2000, you need a Windows 2000 server in an existing Windows 2000 organization. This server can be either a member server in a domain or a domain controller. You must also have your Windows 2000 forest and domain prepared for Exchange 2000. For more information on these steps, see Chapter 2, “Configuring Active Directory for Exchange 2000.”

This chapter assumes that you have already prepared your Windows 2000 organization and created connection agreements between your existing Exchange organization and your Windows 2000 organization. For the details on these steps, see Chapter 3, “Deploying the Active Directory Connector.”

Finally, check that the Simple Mail Transfer Protocol (SMTP) and NNTP components of Windows 2000 are installed on the server. These are required because the Exchange 2000 server uses these Windows 2000 components for its own operations. The SMTP service is used for message transfer between servers, and the NNTP service is used to allow access to Internet standard newsgroups.

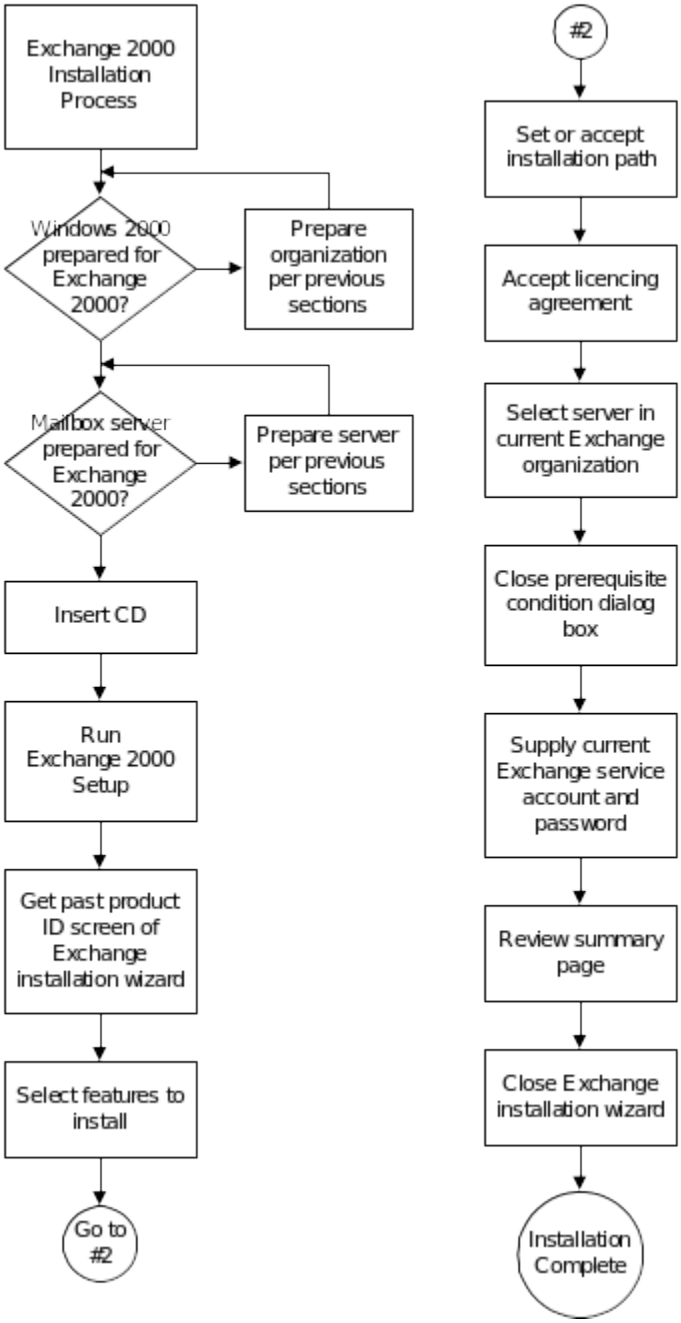
To verify that these protocols are installed:

1. Click the **Start** button, and point to **Settings**, then **Control Panel**, then **Add/Remove Programs**.
2. Click **Add/Remove Windows Components**.
3. Click **Internet Information Services** and then click **Details**.
4. Make sure the boxes for SMTP and NNTP are checked; click **OK** and then click **Next**.

   Note: You will need access to the Windows 2000 Server or Advanced Server source files through an Intranet connection or the product CD.

5. Close the Windows Components Wizard after the installation process completes.

PREPARING FOR POSSIBLE INSTALLATION ISSUES


Exchange 2000 Installation Process
Windows 2000 prepared for Exchange 2000?
Prepare organization per previous sections
Mailbox server prepared for Exchange 2000?
Prepare server per previous sections
Insert CD
Run Exchange 2000 Setup
Get past product ID screen of Exchange installation wizard
Select features to install
Go to #2
#2
Set or accept installation path
Accept licencing agreement
Select server in current Exchange organization
Close prerequisite condition dialog box
Supply current Exchange service account and password
Review summary page
Close Exchange installation wizard
Installation Complete

This section explains the actions you need to perform before installing Exchange 2000 on a new Windows 2000 server. By this point, you should have prepared your Windows 2000 Active Directory and your current Exchange organization for Exchange 2000. You will also have installed Windows 2000 Server, Advanced Server, or DataCenter server on the system where you will be installing Exchange 2000. You will also have put on a new pot of coffee and put the cat out.

EXCHANGE 2000 SERVER INSTALLATION PROCEDURE

What You Will Need

To complete this procedure, you will require the following items:

- Your preferred Windows 2000 server backup software
- The documented application backup procedure
- The documented Windows 2000 backup procedure
- Account name and password that has permissions to backup the server that will be installed

If the server on which you are installing Exchange 2000 is running other operational applications, you should perform a full backup of this system. You might need this in case there are any problems with the Exchange installation.

First of all, perform a full application-level backup of the system. Make sure that the application backup is done according to the backup instructions for the product running on Windows 2000. For example, if you are running a SQL Server database on this system, make a backup of the database with database-aware backup software, so that the data held in any open files is backed up correctly.

You should follow this application-level backup with a system backup of the Windows 2000 server. This can exclude the application data, which you have already backed up in the previous section but should include registry and system state information.

These two backups will give you a fallback position in case you need to roll back the server to the point at which you started the installation. Once you have a full backup, you are ready to start Exchange 2000 Setup.

The Exchange Server installation procedure is straightforward. If you have already prepared your Windows 2000 forest and domain as shown in Chapter 2, “Configuring Active Directory for Exchange 2000,” this should not be a long process.

What You Will Need

To complete this procedure, you will need the following materials:

- Windows 2000 Server, running SP1 with the hotfixes described in the Microsoft Knowledge Base Article, Q271976
- Exchange 2000 installation CD

What You Should Know

To install Exchange 2000 correctly, you should know the following:

- The name of an Exchange 5.5 SP3 server in the current Exchange organization
- Exchange 5.5 Service Account name and password
- Exchange 2000 Full Administrator account name and password or name and password of an account that has Exchange 2000 Full Administrator rights and local administrator rights on the server that you are upgrading

If you do not want to upgrade your Exchange 5.5 servers, or if your current Exchange 5.5 servers are not capable of running Windows 2000, you can use this section to learn how to install a new server with Exchange 2000 in an existing Exchange 5.5 site. The reason for doing this should be outlined in your Exchange 2000 migration plan. If you haven't created a migration plan, read the **Exchange 2000 Architecture Guide,** which is a companion to this book.

After this server is installed, you can move services, resources, and mailboxes to it with minimal effect, if any, on the current systems.

Installation Steps

To install Exchange 2000, perform the following steps:

1. Insert the Exchange 2000 Server CD into the appropriate server. Close the Auto Run window, and open a command prompt.
2. From the command prompt, type **F:\SETUP\I386\SETUP** (where *F:* is your CD-ROM drive).
3. On the first page of the Microsoft Exchange 2000 Installation Wizard, click **Next**; on the second page, click **I agree**, and then click **Next**; and on the third page, type the product ID number from your Exchange 2000 Server CD; then click **Next**.
4. On the **Component Selection** page, you can change the options that are installed. Select from three different installations: **Typical** (Microsoft Exchange Messaging and Collaboration Services and Microsoft Exchange System Management Tools), **Minimum** (Messaging and Collaboration only), or **Custom**. (See upper inset on Figure 1 below.)

   If your Windows 2000 server does not meet the requirements for installing Exchange 2000 (for example, if you have not installed the NNTP service on the Windows 2000 server), then you will only be able to see the custom option. However, you can add any of the available options using this option.

   After you finish selecting installation options, click **Next** to accept the default installation path, and continue to step 6, or click **Change Folder** to choose another path.

   Note that the default installation folder is now C:\Program Files\Exchsrvr, rather than C:\Exchsrvr as in Exchange 5.5.

For each server you install, you will already have the type of installation decided when you get to this point in the installation process.

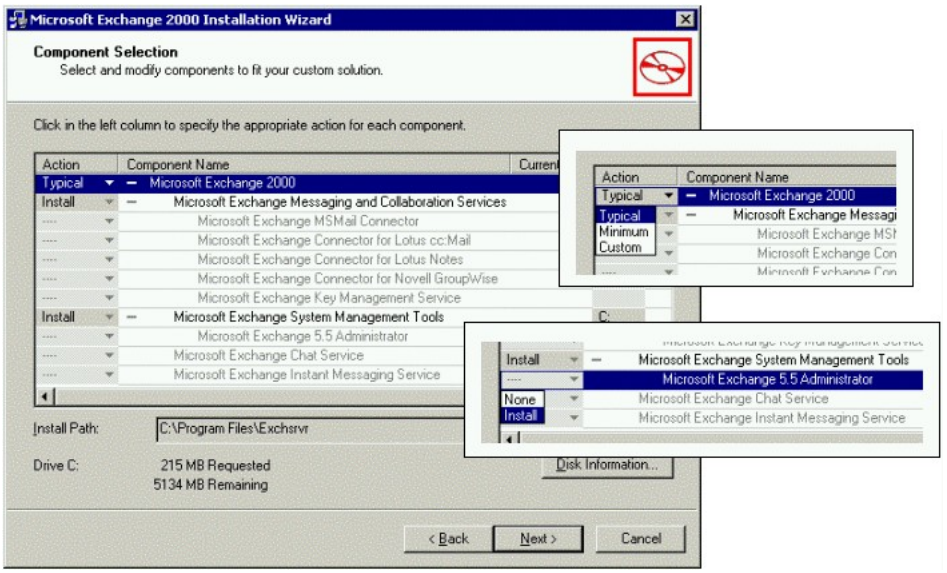


Figure 1. Fresh Install Component Selection Detail

5. To change the installation path, select **Microsoft Exchange 2000** in the Component Name column and press **Change Folder**. On the next page, select or type the folder name where you want to install the Exchange system files, and then click **OK**. If you try to install in a directory that does not exist, you will see a message box with the following text:

   The folder does not exist. Would you like to create it now?

   Click the **Yes** button to create the new directory and return to the **Component Selection** page of the wizard. Click **Next** to continue.

6. On the **Licensing Agreement** page, click **I agree that: I have read...** and then click **Next**.

7. On the **Select a Server in an Exchange 5.5 Organization** page, type the name of a server in the site you wish to join, and then click **Next**.

8. A message box warns you that the test for prerequisite conditions will take a few minutes. During this check, Setup determines whether your Exchange 5.5 and Windows 2000 organizations have been correctly prepared. It then verifies whether the installer has submitted the information required to join the Exchange 5.5 organization. Press **OK** to start the check.

9. After Setup determines that it has enough information about your Exchange 5.5 organization and your logon account to perform the installation, it prompts you for the Exchange 5.5 Service Account password to ensure that you are a current Exchange 5.5 administrator. Type the password, and click **Next**.

10. You will be shown the **Component Summary** page at this point. Review the information to ensure that all the components you want are selected. Click **Next** to begin the installation.
11. The installation process goes through three phases: the pre-installation phase, the installation phase, and the post installation phase. These processes can take some time depending on the speed of your system and network, the amount of RAM on your system, and the number and type of components you are installing.
12. On the **Completing the Microsoft Exchange 2000 Wizard** page, click **Finish**.

Note: If you receive any system messages warning of an unsuccessful installation, you should ensure that your organizations have been configured properly (see the previous sections on preparing your Windows 2000 Active Directory for details) and that you are installing with the Exchange 2000 Administrator Account. Then try again.

ADC Configuration Connection Agreement

If this is the first Exchange 2000 server you have installed in the Exchange 5.5 site, you will see a new ADC Configuration Connection Agreement (ConfigCA) after the installation completes. This ConfigCA is the connection agreement that replicates the Exchange 5.5 configuration information in Active Directory and vice versa. The Exchange 5.5 endpoint for the ConfigCA is the Site Replication Service on the server you just installed.

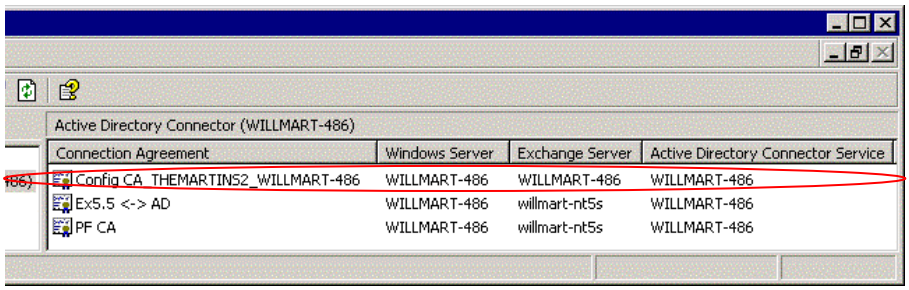


Figure 2. Active Directory Connector Manager - ConfigCA Created During Fresh Install

The first server you upgrade in an Exchange 5.5 site, or the first Exchange 2000 server you add to an Exchange 5.5 site, or any directory replication server that you upgrade in an Exchange 5.5 site, has a “replica” of the Exchange 5.5 directory added to that server.

Note: The SRS is created only on the first Exchange 2000 server installed or upgraded in Exchange 5.5 sites in your Exchange 5.5 organization or on Exchange 5.5 directory replication bridgeheads that you upgrade.

RECOVERING AFTER A FAILED EXCHANGE 2000 INSTALLATION

So you've got to the final screen on the installation wizard and none of the components have come up with any inconvenient red crosses. Now you need to complete your installation with a full Exchange 2000 backup and an application and server level backup of your machine. This task will allow you to recover your server back to the point of the successful completion of the installation procedure should that be necessary at some point in the future.

What You Will Need

To carry out this procedure, you will require the following:

- Preferred Exchange 2000 server backup software
- Preferred application-level backup software
- Preferred Windows 2000 server backup software
- Documented Exchange 2000 backup procedure
- Documented application-level backup procedure
- Documented Windows 2000 backup procedure
- An account name and password that has permissions to backup the server that you installed.

Backup Procedure

First, carry out a full Exchange 2000 backup of the server, then an application-level backup (assuming there were other applications running on this server before you installed Exchange 2000). Follow this with a backup of the Windows 2000 system including the system state and the registry but excluding the Exchange databases. This will give you a rollback position in case you need to recover the server to the point when you started the backup.

Once you have a full backup of the system, you have completed the Exchange 2000 installation. Congratulations! You can let the cat back in now.

RECOVERING AFTER A FAILED EXCHANGE 2000 INSTALLATION

This section helps describe the steps you can take if the installation process does not go well.

What You Will Need

Before you do this you need to have the following items:

- Preferred Windows 2000 server backup software
- Server backup from immediately before failed Exchange 2000 installation

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SUMMARY

- Documented server recovery procedure
- Documented Windows 2000 recovery procedure
- Account name and password that has permissions to restore the server
- A fresh pot of very strong coffee

Recovery Procedure

If your Exchange 2000 installation fails, you should not have to perform any actions to your Active Directory, but you may have to restore the applications that were previously installed on the server. This is necessary only if this server was previously installed and operational before the installation attempt.

If this server was build expressly for Exchange 2000, you can either remove it from your organization, or attempt the installation again after correcting the error conditions you find documented in the installation log. This log can be found in the root of the C: drive in filename "Exchange Server Setup Progress.log."

To restore a previously operational server, use your standard backup software and the backup you made immediately before attempting your Exchange 2000 installation (you did make one, didn't you? No? Oh dear...). Using your documented server recovery procedures, recover the server to the point immediately before the installation attempt. You may also need to recover the server to the Windows 2000 level, depending on the application you are running.

Related Topics

For more information, refer to the backup and restore documentation in your Windows 2000, Exchange 5.5 and Exchange 2000 product documentation.

In this chapter, you learned how to install an Exchange 2000 server in a currently existing Exchange 5.5 site. You were shown how to limit your risk by backing up your system before the installation if this server was already functioning for other roles, and backing it up again after the server was installed.

The next step in this process is to place resources on this server. This can be done by moving mailboxes or public folders to it or by creating connectors. These processes are detailed in Chapter 6, "Moving Mailboxes and Public Folders," Chapter 7, "Migrating Transports, Connectors and Hubs," and Chapter 9, "Upgrading Other Messaging Components."

More Information

For more information on the process of installing Exchange 2000 servers in existing Exchange 5.5 sites, see “Guide to Upgrading from Exchange Server 5.5 to Exchange 2000 Server” available from: http://www.microsoft.com/exchange/productinfo/E2KGuide.htm